

Raine's Bird-Nesting in North-West Canada.¹—From what we can gather this work has not as yet come into the hands of many of our professional ornithologists, nor has it up to the present time been reviewed in the pages of 'The Auk.' It is an octavo volume of about two hundred pages, and its illustrations consist in the main of six colored plates of eggs of birds (61 species), together with numerous lithographs of birds, scenery, and heads of mammals, and a variety of text-cuts. Both the colored and uncolored lithographs were drawn upon stone by the author himself, so he is wholly responsible for them. Apparently Mr. Raine spent the month of June, 1891, in the Manitoban region, and the present book is a running narrative of his doings there during that time. From the 'Preface' we learn that though "the title of the book would lead readers to expect the work to be purely Oölogical, it will be found to treat on matter not strictly Ornithological. I have branched off and given descriptions of the habits of the more important animals inhabiting the region traversed, and have also given a description of the scenery between Toronto and Vancouver. . . . I have given accurate descriptions of the birds' eggs, and also given their measurements. . . . The book does not describe all the species which inhabit the Northwest, for many common species known to be summer residents were not even observed, and the songs of many warblers, vireos, sparrows, and other small birds were heard in the bluffs and along the wooded streams, but I could not recognize the species."

It is evident from all this that Mr. Raine claims for his book, first, a popular descriptive part; and secondly, a scientifically accurate oölogical part. We propose only to concern ourself with the latter, and that as briefly as possible. We would hardly even be expected here to take our author's ludicrous figures of birds and their nests into consideration, for both space and our time are altogether too valuable to be squandered in any such manner. Judging from its unfeathered tarsi, his figure of a Golden Eagle, for example, evidently does not represent that bird, and it may be cited as an average specimen of the work of this thoroughly unreliable artist.

We turn first then to the six colored plates of the eggs. None of these are numbered *on the plate*, and as the figures on *each plate* run 1, 2, 3 and so on, it renders it impossible to refer to any particular specimen either by number or plate. Personally, I have compared many of these colored drawings with large series of eggs of the species they are supposed to represent, and we may say, as a rule, they are, in the matters of outline, coloring, and measurements, highly inaccurate, and can in no way be depended upon.

Lastly, this work is so pregnant with statements in regard to nests and eggs of birds which Mr. Raine alleges to have either seen or taken in

¹ Bird-Nesting in North-West Canada. Walter Raine. Illustrated. Hunter, Rose & Co., Toronto: 1892.

the region visited, that one stands quite aghast as he reads them. These statements in no way agree with the experiences of other naturalists who have gone carefully over the same ground, nor do they agree with what has been published in the premises. We very much question the statement that "The Rusty Grackle is common between Winnipeg and Portage-la-Prairie, usually making its nest on the ground like a song sparrow" (p. 112). I am inclined to think that our author has confused the Rusty Grackle with Brewer's Blackbird. In a similar manner he has probably confused the Northern Shrike with the White-rumped Shrike, and the statement that the "great Northern Shrike breeds plentifully around Crescent Lake, Assiniboia," would appear to be vouched for by the author of this book alone.

What Mr. Raine says about the breeding of the Evening Grosbeak is also characterized by a certain amount of looseness and conjecture. We are told "This species breeds in the Northern Rocky Mountains, but its eggs are almost unknown in collections and consequently very valuable. It is reported as a common resident in the forests of Washington Territory. A nest of four eggs, on the point of hatching, was found in Yolo County, California, May 10, 1886, but could not be preserved. These eggs are said to be similar to those of the Black-headed Grosbeak."

Finally, it will be interesting to oölogists to know that Mr. Raine, on two or three occasions, collected the eggs of the Little Brown Crane in this region. We wonder if they were not the nests and eggs of the Sand-hill Crane that Mr. Raine met with? This surmise would appear to present the true facts in the case, in as much as, so far as our author's account of his next visit to this region has been given us (*The Nidologist*, Jan. and Feb. 1894), he says never a word about finding any more nests and eggs of the Little Brown Crane, but speaks with confidence about Sand-hill and Whooping Cranes breeding throughout many parts of the country he explored.

In addition to his own personal collecting, we understand Mr. Raine is a very extensive purchaser of eggs from collectors in many other parts of the world; and he also keeps out a corps of his own paid collectors. Such practices require great caution, as there are collectors and collectors, and birds' eggs and birds' eggs. From a scientific point of view, a bird's egg is valueless unless its identification is absolutely sure. Published oölogical works are likewise scientifically valueless if the statements they contain are rested upon accounts that cannot be verified beyond all peradventure of a doubt. If Mr. Raine hopes to build up a solid reputation as a perfectly reliable avian oölogist, he should constantly keep before his mind the hints we have, with all kindness, endeavored to give him in this brief review of his 'Bird-Nesting in North-West Canada.' Let him apply these hints to the next volume he has already promised us, and not only will the lay reader look with interest for the coming out of his books, but they will also be welcome additions to the library of the scientist.

—R. W. S.